

AMENDMENTS TO THE SPECIFICATION:

Page 2, replace the paragraph beginning on line 19 with the following amended paragraph:

--[0007] ~~Claim 1~~ A first embodiment of the invention resides in a production method of a columnar electric device, characterized in that the method comprises the steps of:--

Page 3, replace the paragraph beginning on line 3 with the following amended paragraph:

--[0008] ~~Claim 2~~ A second embodiment resides in a production method of a columnar electric device, characterized in that the method comprises the steps of:--

Page 3, replace the paragraph beginning on line 15 with the following amended paragraph:

--[0009] ~~Claim 3~~ A third embodiment resides in a production method of a columnar electric device, characterized in that the method comprises the steps of:--

Page 3, replace the paragraph beginning on line 26 with the following amended paragraph:

--[0010] ~~Claim 4~~ A fourth embodiment resides in a production method of a columnar electric device, characterized in that the method comprises the step of:--

Page 4, replace the paragraph beginning on line 8 with the following amended paragraph:

--[0011] ~~Claim 5~~ A fifth embodiment resides in a production method of a columnar electric device, characterized in that the method comprises the step of:--

Page 4, replace the paragraph beginning on line 15 with the following amended paragraph:

--[0012] ~~Claim 6~~ A sixth embodiment resides in the production method of a columnar electric device of any one of ~~claims 1 through 5~~ the preceding first through fifth embodiments, characterized in that the columnar electric device is a sensor or solar cell.--

Page 4, replace the paragraph beginning on line 19 with the following amended paragraph:

--[0013] ~~Claim 7~~ A seventh embodiment resides in a columnar electric device characterized in that the columnar electric device comprises:--

Page 4, replace the paragraph beginning on line 25 with the following amended paragraph:

--This electric device is produced by the method of any one of ~~claims 1 through 5~~ the preceding first through fifth embodiments, for example.--

Page 4, replace the paragraph beginning on line 27 with the following amended paragraph:

--[0014] ~~Claim 8~~ An eighth embodiment resides in the columnar electric device of ~~claim 7~~ the foregoing device, characterized in that the columnar body is a fibrous body.--

Page 5, replace the paragraph beginning on line 3 with the following amended paragraph:

--[0015] ~~Claim 9~~ A ninth embodiment resides in a production method of a columnar electric device, characterized in that the method comprises the steps of:--

Page 5, replace the paragraph beginning on line 20 with the following amended paragraph:

--[0016] ~~Claim 10~~ A tenth embodiment resides in a production method of a columnar electric device, characterized in that the method comprises the steps of:--

Page 6, replace the paragraph beginning on line 10 with the following amended paragraph:

--[0017] ~~Claim 11~~ An eleventh embodiment resides in a production method of a columnar electric device, characterized in that the method comprises the steps of:--

Page 6, replace the paragraph beginning on line 27 with the following amended paragraph:

--[0018] ~~Claim 12~~ A twelfth embodiment resides in a production method of a columnar electric device, characterized in that the method comprises the steps of:--

Page 7, replace the paragraph beginning on line 12 with the following amended paragraph:

--[0019] ~~Claim 13~~ A thirteenth embodiment resides in a production method of a columnar electric device, characterized in that the method comprises the steps of:--

Page 7, replace the paragraph beginning on line 21 with the following amended paragraph:

--[0020] ~~Claim 14~~ A fourteenth embodiment resides in a production method of a columnar electric device, characterized in that the method comprises the steps of:--

Page 8, replace the paragraph beginning on line 9 with the following amended paragraph:

--[0021] ~~Claim 15~~ A fifteenth embodiment resides in the production method of a columnar electric device of any one of ~~claims 9 through 14~~ the foregoing ninth through fourteenth embodiments, characterized in that the columnar electric device is a sensor or solar cell.--

Page 8, replace the paragraph beginning on line 13 with the following amended paragraph:

--[0022] ~~Claim 16~~ A sixteenth embodiment resides in a columnar electric device characterized in that the columnar electric device comprises:--

Page 8, replace the paragraph beginning on line 22 with the following amended paragraph:

--This electric device is produced by the method of any one of ~~claims 9 through 14~~ the preceding ninth through fourteenth embodiments, for example.

Page 8, replace the paragraph beginning on line 24 with the following amended paragraph:

--[0023] ~~Claim 17~~ A seventeenth embodiment resides in the columnar electric device of ~~claim 14~~ the fourteenth embodiment, characterized in that the columnar body is a fibrous body.--

Page 8, replace the paragraph beginning on line 27 with the following amended paragraph:

--[0024] ~~Claim 18~~ An eighteenth embodiment resides in a solar cell characterized in that the solar cell comprises:--

Page 9, replace the paragraph beginning on line 8 with the following amended paragraph:

--This solar cell is produced by the method of any one of ~~claims 9 through 14~~ the ninth through fourteenth embodiments, for example.--

Page 9, replace the paragraph beginning on line 10 with the following amended paragraph:

--[0025] ~~Claim 19~~ A nineteenth embodiment resides in the solar cell ~~of claim 18~~ as described above, characterized in that the columnar body is a fibrous body.--

Page 9, replace the paragraph beginning on line 12 with the following amended paragraph:

--[0026] ~~Claim 20~~ A twentieth embodiment resides in a production method of a columnar electric device, characterized in that the method comprises the steps of:--

Page 10, replace the paragraph beginning on line 6 with the following amended paragraph:

--[0027] ~~Claim 21~~ A twenty-first embodiment resides in a production method of a columnar electric device, characterized in that the method comprises the steps of:--

Page 10, replace the paragraph beginning on line 26 with the following amended paragraph:

--[0028] ~~Claim 22~~ A twenty-second embodiment resides in a production method of a columnar electric device, characterized in that the method comprises the steps of:--

Page 11, replace the paragraph beginning on line 17 with the following amended paragraph:

--[0029] ~~Claim 23~~ A twenty-third embodiment resides in a production method of a columnar electric device, characterized in that the method comprises the steps of:--

Page 12, replace the paragraph beginning on line 2 with the following amended paragraph:

--~~Claim 24~~ A twenty-fourth embodiment resides in a production method of a columnar electric device, characterized in that the method comprises the step of:--

Page 12, replace the paragraph beginning on line 9 with the following amended paragraph:

--[0030] ~~Claim 25~~ A twenty-fifth embodiment resides in a production method of a columnar electric device, characterized in that the method comprises the steps of:--

Page 12, replace the paragraph beginning on line 22 with the following amended paragraph:

--[0031] ~~Claim 26~~ A twenty-sixth embodiment resides in the production method of a columnar electric device of any one of ~~claims 20 through 25~~ the five immediately foregoing methods, characterized in that the columnar electric device is a sensor or solar cell.--

Page 12, replace the paragraph beginning on line 26 with the following amended paragraph:

--[0032] ~~Claim 27~~ A twenty-seventh embodiment resides in a columnar electric device characterized in that the columnar electric device comprises:--

Page 13, replace the paragraph beginning on line 9 with the following amended paragraph:

--This electric device is produced by the method of any one of ~~claims 20 through 25~~ the twentieth through twenty-fifth embodiments, for example.--

Page 13, replace the paragraph beginning on line 11 with the following amended paragraph:

--[0033] ~~Claim 28~~ A twenty-eighth embodiment resides in the columnar electric device of ~~claim 27~~ the twenty-seventh embodiment, characterized in that the columnar body is a fibrous body.--

Page 13, replace the paragraph beginning on line 14 with the following amended paragraph:

--[0034] ~~Claim 29~~ A twenty-ninth embodiment resides in a solar cell characterized in that the solar cell comprises:--

Page 13, replace the paragraph 23 with the following amended paragraph:

--This solar cell is produced by the method of any one of ~~claims 20 through 25~~ the twentieth through twenty-fifth embodiments, for example.--

Page 13, replace the paragraph beginning on line 25 with the following amended paragraph:

--[0035] ~~Claim 30~~ A thirtieth embodiment resides in the solar cell of ~~claim 29~~ the twenty-ninth embodiment, characterized in that the columnar body is a fibrous body.--

Page 13, replace the paragraph beginning on line 27 with the following amended paragraph:

--[0036] ~~Claim 31~~ A thirty-first embodiment resides in a production method of a columnar electric device, characterized in that the method comprises the steps of:--

Page 14, replace the paragraph beginning on line 21 with the following amended paragraph:

--[0037] ~~Claim 32~~ A thirty-second embodiment resides in a production method of a columnar electric device, characterized in that the method comprises the steps of:--

Page 15, replace the paragraph beginning on line 14 with the following amended paragraph:

--[0038] ~~Claim 33~~ A thirty-third embodiment resides in a production method of a columnar electric device, characterized in that the method comprises the steps of:--

Page 16, replace the paragraph beginning on line 6 with the following amended paragraph:

--[0039] ~~Claim 34~~ A thirty-fourth embodiment resides in a production method of a columnar electric device, characterized in that the method comprises the steps of:--

Page 16, replace the paragraph beginning on line 20 with the following amended paragraph:

--[0040] ~~Claim 35~~ A thirty-fifth embodiment resides in a production method of a columnar electric device, characterized in that the method comprises the steps of:--



Page 17, replace the paragraph beginning on line 3 with the following amended paragraph:

--[0041] ~~Claim 36~~ A thirty-sixth embodiment resides in a production method of a columnar electric device, characterized in that the method comprises the steps of:--

Page 17, replace the paragraph beginning on line 18 with the following amended paragraph:

--[0042] ~~Claim 37~~ A thirty-seventh embodiment resides in the production method of a columnar electric device of any one of ~~claims 31 through 36~~ the thirty-first through thirty-sixth embodiments, characterized in that the columnar electric device is a sensor or solar cell.--

Page 17, replace the paragraph beginning on line 22 with the following amended paragraph:

--[0043] ~~Claim 38~~ A thirty-eighth embodiment resides in a columnar electric device, characterized in that the columnar electric device comprises:--

Page 18, replace the paragraph beginning on line 7 with the following amended paragraph:

--This electric device is produced by the method of any one of ~~claims 31 through 36~~ the thirty-first through thirty-sixth embodiments, for example.--

Page 18, replace the paragraph beginning on line 9 with the following amended paragraph:

--[0044] ~~Claim 39~~ A thirty-ninth embodiment resides in the columnar electric device of ~~claim 38~~ the thirty-eighth embodiment, characterized in that the columnar body is a fibrous body.--

Page 18, replace the paragraph beginning on line 12 with the following amended paragraph:

--[0045] ~~Claim 40~~ A fortieth embodiment resides in a production method of a columnar electric device, characterized in that the method comprises the steps of:--

Page 18, replace the paragraph beginning on line 19 with the following amended paragraph:

--[0046] ~~Claim 41~~ A forty-first embodiment resides in a production method of a columnar electric device, characterized in that the method comprises the steps of:--

Page 19, replace the paragraph beginning on line 1 with the following amended paragraph:

--[0047] ~~Claim 42~~ A forty-second embodiment resides in the production method of a columnar electric device of ~~claim 40 or 41~~ the fortieth or forty-first embodiment, characterized in that the columnar electric device is an optical sensor or solar cell.--

Page 19, replace the paragraph beginning on line 5 with the following amended paragraph:

--[0048] ~~Claim 43~~ A forty-third embodiment resides in a columnar electric device, characterized in that the columnar electric device comprises:--

Page 19, replace the paragraph beginning on line 13 with the following amended paragraph:

--This electric device is produced by the method of any one of ~~claims 40 through 42~~ the fortieth through forty-second embodiments.--

Page 19, replace the paragraph beginning on line 15 with the following amended paragraph:

--[0049] ~~Claim 44~~ A forty-fourth embodiment resides in a production method of a columnar transistor, characterized in that the method comprises the steps of:--

Page 19, replace the paragraph beginning on line 22 with the following amended paragraph:

--[0050] ~~Claim 45~~ A forty-fifth embodiment resides in the production method of a columnar transistor of ~~claim 44~~ the forty-fourth embodiment, characterized in that the method further comprises the steps of:--

Page 20, replace the paragraph beginning on line 3 with the following amended paragraph:

--[0051] ~~Claim 46~~ A forty-sixth embodiment resides in a columnar transistor characterized in that the columnar transistor comprises:--

Page 20, replace the paragraph beginning on line 11 with the following amended paragraph:

--This columnar transistor is produced by the method of ~~claim 44 or 45~~ the forty-fourth or forty-fifth embodiment.--

Page 20, replace the paragraph beginning on line 14 with the following amended paragraph:

--[0052] According to ~~claim 1~~ the first embodiment, the mask material such as a fabric, thread, or the like is helically wound onto the outer periphery of the columnar body, and thereafter the electroconductive wire is wound onto the outer periphery by coating the electroconductive substance onto the outer periphery through the helical gap defined by the mask

material. It is desirable to adopt vapor deposition, application, or the like as coating, thereby enabling obtainment of a stable columnar electric device having the electroconductive wire closely contacted with the columnar body.--

Page 20, replace the paragraph beginning on line 25 with the following amended paragraph:

--[0053] According to ~~claims 2 through 4~~ the second through fourth embodiments, it becomes possible to arrange the electroconductive wire while uniformalizing a diameter of the electroconductive wire and a helical gap defined thereby, to facilitate a task of designing and simulation. Further, winding a linear substance having a small diameter like a thread, enables production of a small-sized columnar electric device.--

Page 21, replace the paragraph beginning on line 6 with the following amended paragraph:

--[0054] The production method of ~~claim 5~~ the fifth embodiment is effective, when the electroconductive wire and the insulative wire exhibit a higher adhesiveness therebetween, for example, and readily follow a stress such as bending. It is desirable to use an epoxy adhesive for joining the electroconductive wire to the insulative wire and for joining them to the columnar body, and the columnar electric device can be produced by an extremely simple method.--

Page 21, replace the paragraph beginning on line 15 with the following amended paragraph:

--[0055] According to ~~claim 6~~ the sixth embodiment, the columnar sensor or solar cell can be produced by the method of

any one of ~~claims 1 through 5~~ the first through fifth embodiments.--

Page 21, replace the paragraph beginning on line 18 with the following amended paragraph:

--[0056] ~~Claim 7~~ The seventh embodiment resides in the columnar electric device which can be downsized. Examples thereof include a temperature sensor, pressure sensor, ion sensor, and the like. The mentioned sensors adopt platinum, poly-3-alkylthiophene, and polyaniline, as the electroconductive wires, respectively.--

Page 21, replace the paragraph beginning on line 24 with the following amended paragraph:

--[0057] According to ~~claim 8~~ the eighth embodiment, also the columnar body can be downsized. It is desirable to adopt polyethylene terephthalate, polymethyl methacrylate, nylon, polyester, polypropylene, or the like, as the fibrous body. Simultaneously, according to the method of any one of ~~claims 2 through 5~~ the second through fifth embodiments, there can be obtained an extremely small-sized columnar electric device of  $1\text{mm}^3$  or less, for example, by winding a thin electroconductive wire onto the columnar body with a fine interval to be defined by the electroconductive wire.--

Page 22, replace the paragraph beginning on line 7 with the following amended paragraph:

--[0058] According to ~~claim 9~~ the ninth embodiment, the mask materials such as fabric, thread, or the like are helically wound onto the outside of the semiconductor coated on the columnar body, at first. Then, the electroconductive substances

are coated onto the outside through the helical gaps defined by the mask materials, respectively, thereby winding the two electroconductive wires onto the outside. It is desirable to adopt vapor deposition, application, or the like as coating, thereby enabling obtainment of a stable columnar electric device having the two electroconductive wires closely contacted with the semiconductor.--

Page 22, replace the paragraph beginning on line 18 with the following amended paragraph:

--[0059] According to ~~claims 10 through 12~~ the tenth through twelfth embodiments, it becomes possible to arrange the electroconductive wires while uniformalizing diameters of the electroconductive wires and helical gaps defined thereby, to facilitate a task of designing and simulation. Further, winding linear substances having small diameters like threads, enables production of a small-sized columnar electric device. In case of using the same material for both the first electroconductive wire and second electroconductive wire, it is desirable to produce the electric device by the method recited in ~~claim 12~~ the twelfth embodiment.--

Page 23, replace the paragraph beginning on line 2 with the following amended paragraph:

--[0060] The production method of ~~claim 13~~ the thirteenth embodiment is effective, when the electroconductive wires and the insulative wires exhibit a higher adhesiveness therebetween, for example, and readily follow a stress such as bending. It is desirable to use an epoxy adhesive for joining the electroconductive wires to the insulative wires and for

joining them to the columnar body, and the columnar electric device can be produced by an extremely simple method.--

Page 23, replace the paragraph beginning on line 11 with the following amended paragraph:

--[0061] The production method of ~~claim 14~~ the fourteenth embodiment is effective, when the first electroconductive wire and the insulative wires exhibit a higher adhesiveness therebetween, for example, and readily follow a stress such as bending. It is desirable to use an epoxy adhesive for joining the first electroconductive wire to the insulative wires and for joining them to the columnar body, and the columnar electric device can be produced by an extremely simple method.--

Page 23, replace the paragraph beginning on line 20 with the following amended paragraph:

--[0062] According to ~~claim 15~~ the fifteenth embodiment, the columnar sensor or solar cell can be produced by the method of any one of ~~claims 9 through 14~~ the ninth through fourteenth embodiments.--

Page 23, replace the paragraph beginning on line 23 with the following amended paragraph:

--[0063] ~~Claim 16~~ The sixteenth embodiment resides in a columnar electric device which can be downsized. Examples thereof include an optical sensor, gas sensor, humidity sensor, temperature sensor, radiation sensor, solar cell, and the like. The optical sensor is configured to use an organic semiconductor as the semiconductor, such as an electroconductive polymer, poly-p-phenylene, polythiophene, or the like doped with fullerene. Similarly, the gas sensor is configured to use poly-p-phenylene,

polyacetylene, polythiophene, or the like; the humidity sensor, polyfuran, polythiophene, or the like; the temperature sensor, poly-3-alkylthiophene, or the like; and the radiation sensor, polyacetylene, polythiophene, or the like in a sulfur hexafluoride atmosphere. When the columnar optical sensor can be bent, it is also possible to immerse the portion of the optical sensor having the electroconductive wires wound thereon in a dopant solution, and to simultaneously apply a voltage to one of the electroconductive wires to thereby achieve doping.--

Page 24, replace the paragraph beginning on line 15 with the following amended paragraph:

--[0064] ~~Claim 18~~ The eighteenth embodiment resides in a columnar solar cell produced by the method of any one of ~~claims 9 through 14~~ the ninth through fourteenth embodiments. It is possible to obtain a small-sized solar cell, by a simple production method.--

Page 24, replace the paragraph beginning on line 19 with the following amended paragraph:

--[0065] According to ~~claim 17 or 19~~ the seventeenth or nineteenth embodiment, also the columnar body can be downsized. The usable fibrous body is the same as that of ~~claim~~ embodiment 8. Simultaneously, according to the method of any one of ~~claims~~ embodiments 10 through 14, there can be obtained an extremely small-sized columnar electric device, by winding thin electroconductive wires with fine intervals to be defined by the electroconductive wires.--



Page 24, replace the paragraph beginning on line 26 with the following amended paragraph:

--[0066] According to ~~claim 20~~ the twentieth embodiment, the mask materials such as fabric, thread, or the like are helically wound onto the outer periphery of the columnar body, at first. Then, the electroconductive substances are coated onto the outer periphery through the helical gaps defined by the mask materials, respectively, thereby winding the two electroconductive wires onto the outer periphery. Further, the semiconductor is coated onto the outer periphery through each helical gap defined by the two electroconductive wires therebetween. It is desirable to adopt vapor deposition, application, or the like as coating, thereby enabling obtainment of a stable columnar electric device having the two electroconductive wires and a semiconductor closely contacted with the columnar body.--

Page 25, replace the paragraph beginning on line 13 with the following amended paragraph:

--[0067] According to ~~claims 21 through 23~~ the twenty-first through twenty-third embodiments, it becomes possible to arrange the electroconductive wires while uniformalizing diameters of the electroconductive wires and helical gaps defined thereby, to facilitate a task of designing and simulation. Further, winding linear substances having small diameters like threads, enables production of a small-sized columnar electric device. In case of using the same material for both the first electroconductive wire and second electroconductive wire, it is

desirable to produce the electric device by the method recited in ~~claim 23~~ the twenty-third embodiment.--

Page 25, replace the paragraph beginning on line 24 with the following amended paragraph:

--[0068] The production method of ~~claim 24~~ the twenty-fourth embodiment is effective, when the electroconductive wires and the semiconductor wires exhibit a higher adhesiveness therebetween, for example, and readily follow a stress such as bending. It is desirable to use an epoxy adhesive for joining the electroconductive wires to the semiconductor wires and for joining them to the columnar body, and the columnar electric device can be produced by an extremely simple method.--

Page 26, replace the paragraph beginning on line 6 with the following amended paragraph:

--[0069] The production method of ~~claim 25~~ the twenty-fifth embodiment is effective, when the first electroconductive wire and the semiconductor wires exhibit a higher adhesiveness therebetween, for example, and readily follow a stress such as bending. It is desirable to use an epoxy adhesive for joining the first electroconductive wire to the semiconductor wires and for joining them to the columnar body, and the columnar electric device can be produced by an extremely simple method.--

Page 26, replace the paragraph beginning on line 15 with the following amended paragraph:

--[0070] According to ~~claim 26~~ the twenty-sixth embodiment, the columnar sensor or solar cell can be produced by the method of any one of ~~claims 20 through 25~~ the twentieth through twenty-fifth embodiments.--

Page 26, replace the paragraph beginning on line 18 with the following amended paragraph:

--[0071] ~~Claim 27~~ The twenty-seventh embodiment resides in a columnar electric device which can be downsized. The contents thereof are the same as ~~claim 16~~ the sixteenth embodiment.--

Page 26, replace the paragraph beginning on line 21 with the following amended paragraph:

--[0072] ~~Claim 29~~ The twenty-ninth embodiment resides in a solar cell produced by the method of any one of ~~claims 20 through 25~~ the twentieth through twenty-fifth embodiments. It is possible to obtain a small-sized solar cell, by a simple production method.--

Page 26, replace the paragraph beginning on line 25 with the following amended paragraph:

--[0073] According to ~~claim 28 or 30~~ the twenty-eighth or thirtieth embodiment, also the columnar body can be downsized. The usable fibrous body is the same as that of ~~claim 8~~ the eighth embodiment. Simultaneously, according to the method of any one of ~~claims 20 through 25~~ the twentieth through twenty-fifth embodiments, there can be obtained an extremely small-sized columnar electric device, by winding thin electroconductive wires and/or semiconductor wires with fine intervals to be defined by the electroconductive wires and/or semiconductor wires, respectively.--

Page 27, replace the paragraph beginning on line 7 with the following amended paragraph:

--[0074] According to ~~claim 31~~ the thirty-first embodiment, the mask materials such as fabric, thread, or the like are helically wound onto the outside of the first semiconductor coated on the columnar body, at first. Then, the electroconductive substances are coated onto the outside through the helical gaps defined by the mask materials, respectively, thereby winding the two electroconductive wires onto the outside. Further, the second semiconductor is coated onto the outside through each helical gap defined by the two electroconductive wires therebetween. It is desirable to adopt vapor deposition, application, or the like as coating, thereby enabling obtainment of a stable columnar electric device having the two electroconductive wires and the second semiconductor closely contacted with the first semiconductor.--

Page 27, replace the paragraph beginning on line 21 with the following amended paragraph:

--[0075] According to ~~claims 32 through 34~~ the thirty-second through thirty-fourth embodiments, it becomes possible to arrange the electroconductive wires while uniformalizing diameters of the electroconductive wires and helical gaps defined thereby, to facilitate a task of designing and simulation. Further, winding linear substances having small diameters like threads, enables production of a small-sized columnar electric device. In case of using the same material for both the first electroconductive wire and second electroconductive wire, it is

desirable to produce the electric device by the method recited in ~~claim 34~~ the thirty-fourth embodiment.--

Page 28, replace the paragraph beginning on line 5 with the following amended paragraph:

--[0076] The production method of ~~claim 35~~ the thirty-fifth embodiment is effective, when the electroconductive wires and the semiconductor wires exhibit a higher adhesiveness therebetween, for example, and readily follow a stress such as bending. It is desirable to use an epoxy adhesive for joining the electroconductive wires to the insulative wires and for joining them to the columnar body, and the columnar electric device can be produced by an extremely simple method.--

Page 28, replace the paragraph beginning on line 14 with the following amended paragraph:

--[0077] The production method of ~~claim 36~~ the thirty-sixth embodiment is effective, when the first electroconductive wire and the semiconductor wires exhibit a higher adhesiveness therebetween, for example, and readily follow a stress such as bending. It is desirable to use an epoxy adhesive for joining the first electroconductive wire to the semiconductor wires and for joining them to the columnar body, and the columnar electric device can be produced by an extremely simple method.--

Page 28, replace the paragraph beginning on line 23 with the following amended paragraph:

--[0078] According to ~~claim 37~~ the thirty-seventh embodiment, the columnar sensor or solar cell can be produced by the method of any one of ~~claims 31 through 36~~ the thirty-first through thirty-sixth embodiments.--

Page 28, replace the paragraph beginning on line 26 with the following amended paragraph:

--[0079] ~~Claim 38~~ The thirty-eighth embodiment resides in a columnar electric device which can be downsized. The contents thereof are the same as ~~claim 16~~ the sixteenth embodiment.--

Page 29, replace the paragraph beginning on line 2 with the following amended paragraph:

--[0080] According to ~~claim 39~~ the thirty-ninth embodiment, also the columnar body can be downsized. The usable fibrous body is the same as that of ~~claim 8~~ the eighth embodiment. Simultaneously, according to the method of any one of ~~claims 31 through 36~~ the thirty-first through thirty-sixth embodiments, for example, there can be obtained an extremely small-sized columnar electric device, by winding thin electroconductive wires and/or semiconductor wires with fine intervals to be defined by the electroconductive wires and/or semiconductor wires, respectively.--

Page 29, replace the paragraph beginning on line 11 with the following amended paragraph:

--[0081] According to ~~claim 40~~ the fortieth embodiment, the semiconductor is coated onto the outer periphery of the electroconductive columnar body, and then the electroconductive wire is wound onto the outside of the semiconductor. It is desirable to adopt vapor deposition, application, or the like as coating. It is desirable to adopt the method of any one of ~~claims 1 through 5~~ the first through fifth embodiments, for example, and the electroconductive columnar body and the

electroconductive wire are closely contacted with each other through the semiconductor. This allows for production of a columnar electric device which operates stably.--

Page 29, replace the paragraph beginning on line 22 with the following amended paragraph:

--[0082] According to ~~claim 41~~ the forty-first embodiment, the semiconductor is coated onto the outer periphery of the electroconductive columnar body, the transparent electrode is subsequently coated onto the outside of the semiconductor, and the electroconductive wire is further wound onto the outside of the transparent electrode. It is desirable to adopt vapor deposition, application, or the like as coating. It is desirable to adopt the method of any one of ~~claims 1 through 5~~ the first through fifth embodiments, for example, and the electroconductive columnar body and the electroconductive wire are closely contacted with each other through the semiconductor and the transparent electrode. Namely, even when the transparent electrode is partially cracked due to stress such as bending, the electroconductive wire fixes the transparent electrode while electrically contacting with the same. This allows for production of a columnar electric device which operates stably.--

Page 30, replace the paragraph beginning on line 12 with the following amended paragraph:

--[0083] According to ~~claim 42~~ the forty-second embodiment, it becomes possible to produce a columnar optical sensor or solar cell which has an electroconductive columnar body, a semiconductor, and a transparent electrode, and which operates stably.--

Page 30, replace the paragraph beginning on line 16 with the following amended paragraph:

--[0084] ~~Claim 43~~ The forty-third embodiment resides in a columnar electric device which can be downsized.--

Page 30, replace the paragraph beginning on line 18 with the following amended paragraph:

--[0085] According to ~~claim 44~~ the forty-fourth embodiment, the insulating material is coated onto the outer periphery of the electroconductive columnar body, and the two electroconductive wires are subsequently wound onto the outside of the insulating material. It is desirable to adopt vapor deposition, application, or the like as coating. It is desirable to adopt the method of any one of ~~claims 9 through 14~~ the ninth through fourteenth embodiments, and the electroconductive columnar body and the two electroconductive wires are closely contacted with each other through the insulating material. This allows for obtainment of a columnar electric device which operates stably.--

Page 31, replace the paragraph beginning on line 3 with the following amended paragraph:

--[0086] According to ~~claim 45~~ the forty-fifth embodiment, it becomes possible to readily produce a transistor having the doped insulating material. When the columnar transistor produced by the method of ~~claim 44~~ the forty-fourth embodiment can be bent, the columnar transistor is bent and immersed into the dopant solution such that the portion of the transistor having the electroconductive wires wound thereon is immersed in the dopant solution. Further, there is applied a



voltage to the electroconductive columnar body, for example, thereby achieving doping. It is also possible to observe a state of the doping, by causing electric current to flow between the two electroconductive wires. Namely, it is possible to perform the doping at an appropriate amount for the insulating material, while confirming the state of the doping.--

Page 31, replace the paragraph beginning on line 18 with the following amended paragraph:

--[0087] ~~Claim 46~~ The forty-sixth embodiment resides in a columnar transistor which can be downsized.--

Page 56, replace the paragraph beginning on line 2 with the following amended paragraph:

--It is also possible to produce a columnar transistor, according to the present invention. For example, there is coated an insulating material onto an insulative columnar body. The coating is performed by vapor deposition, or application of an insulating material in a melt, solution, or gel state. Two electroconductive wires are wound around an outside thereof, for completion. For winding the two electroconductive wires, it is desirable to adopt the method recited in any one of ~~claims 9 through 14~~ the ninth through fourteenth embodiments.--